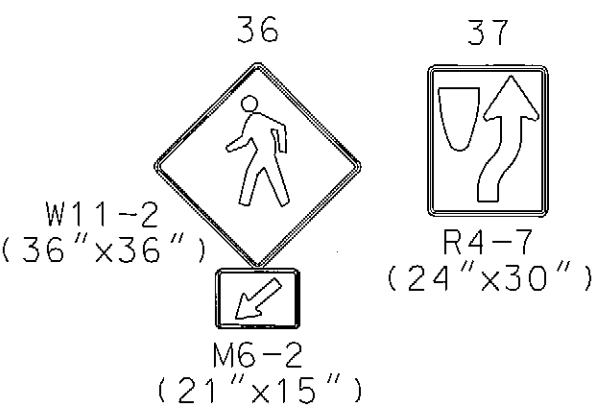


MD 124 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

EXISTING SIGNS TO BE RELOCATED (SHOWN AT FINAL LOCATION)



INTERCONNECT TO SIOUX LANE/ ORCHARD RIDGE DRIVE

TOD NO: XX439-06
SHA NO: MD242834
MD 124 @ Twin Lakes Drive

- CONSTRUCTION DETAILS**
- A. USE EXISTING BASE MOUNTED CABINET AND CONTROLLER. USE EXISTING AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT.
- B. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS QUINCE ORCHARD ROAD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
- C. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS QUINCE ORCHARD ROAD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
- D. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- E. USE EXISTING HANDHOLE.
- F. USE EXISTING CONDUIT.
- G. INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
- H. INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
- J. REMOVE EXISTING PAVEMENT MARKINGS. (STOP LINE)
- K. REMOVE EXISTING PAVEMENT MARKINGS. (CROSSWALKS)
- L. REMOVE EXISTING ASPHALT SIDEWALK AND RAMP AND INSTALL 5 IN. CONCRETE SIDEWALK AND COMBINATION CONCRETE CURB AND GUTTER (STANDARD NO. MD 620.02 TYPE 'A').
- M. REMOVE EXISTING ASPHALT SIDEWALK AND INSTALL 5 IN. CONCRETE SIDEWALK.
- N. REMOVE EXISTING SIDEWALK RAMP AND COMBINATION CURB AND GUTTER. INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.12). (SEE SHEET TSP-2 FOR DETAILS) AND DETECTABLE WARNING SURFACE IN ACCORDANCE WITH STANDARD NO. MD 655.40.
- O. REMOVE EXISTING SIDEWALK RAMP AND COMBINATION CURB AND GUTTER. INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.21). (SEE SHEET TSP-2 & TSP-3 FOR DETAILS) AND DETECTABLE WARNING SURFACE IN ACCORDANCE WITH STANDARD NO. MD 655.40.
- P. REMOVE EXISTING SIDEWALK RAMP AND COMBINATION CURB AND GUTTER. INSTALL 5 IN. CONCRETE SIDEWALK AND COMBINATION CONCRETE CURB AND GUTTER (STANDARD NO. MD 620.02 TYPE 'A').
- Q. REMOVE EXISTING SIDEWALK AND INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.13). (SEE SHEET TSP-3 FOR DETAILS) AND DETECTABLE WARNING SURFACE IN ACCORDANCE WITH STANDARD NO. MD 655.40. BACKFILL, SEED AND MULCH, AND GRADE TO FINAL SIDEWALK ELEVATION.
- R. REMOVE EXISTING CONCRETE SIDEWALK AND INSTALL 5 IN. CONCRETE SIDEWALK.
- S. REMOVE EXISTING CONCRETE/ASPHALT SIDEWALK AND RAMP AND INSTALL 5 IN. CONCRETE SIDEWALK AND COMBINATION CONCRETE CURB AND GUTTER (STANDARD NO. MD 620.02 TYPE 'A').
- T. REMOVE EXISTING SIDEWALK RAMP AND INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.13). (SEE SHEET TSP-3 FOR DETAILS) AND DETECTABLE WARNING SURFACE IN ACCORDANCE WITH STANDARD NO. MD 655.40.
- U. INSTALL SIDEWALK RAMP SEPARATION ISLAND (SEE SHEET TSP-3 FOR DETAILS).
- V. INSTALL STANDARD TYPE 'A' CONCRETE CURB.
- W. REMOVE EXISTING SIDEWALK RAMP. BACKFILL, SEED AND MULCH.
- X. REMOVE EXISTING SIDEWALK RAMP AND COMBINATION CURB AND GUTTER. INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.11). (SEE SHEET TSP-2 FOR DETAILS) AND DETECTABLE WARNING SURFACE IN ACCORDANCE WITH STANDARD NO. MD 655.40.
- Y. INSTALL MEDIAN CUT-THROUGH OPENING, 5 INCH CONCRETE SIDEWALK, AND STANDARD TYPE 'A' CONCRETE CURB (SEE SHEET TSP-03 FOR DETAILS). BACKFILL, SEED, AND MULCH ON BACK SIDE OF PROPOSED TYPE 'A' CURB.
- Z. INSTALL STANDARD TYPE 'A' CONCRETE COMBINATION CURB AND GUTTER.
- AA. RELOCATE EXISTING R4-7 SIGN AND REMOVE EXISTING WOOD SIGN SUPPORT. INSTALL RELOCATED R4-7 SIGN ON ONE 4 IN. x 4 IN. TREATED WOOD SIGN SUPPORT (L=18') AS SHOWN WITHIN A PVC SLEEVE IN MEDIAN.
- BB. INSTALL DETECTABLE WARNING SURFACE WITH THE PLACEMENT IN ACCORDANCE WITH STANDARD NO. MD 655.40.
- CC. INSTALL HANDHOLE.
- DD. REMOVE EXISTING CONCRETE SIDEWALK AND INSTALL MEDIAN CUT-THROUGH AND STANDARD TYPE 'A' CONCRETE CURB.
- EE. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.
- FF. INSTALL 5 INCH CONCRETE SIDEWALK.
- GG. REMOVE EXISTING SIDEWALK AND INSTALL 3 INCH PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- HH. REPLACE 5 INCH CONCRETE SIDEWALK.
- II. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS TWIN LAKES DRIVE"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).

- CONSTRUCTION DETAILS (CONTINUED)**
- JJ. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS TWIN LAKES DRIVE"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
- KK. RELOCATED "PEDESTRIAN CROSSING" SIGN TO BE INSTALLED ON ONE 4 IN. x 6 IN. TREATED WOOD SUPPORT (L=18 FT.).
- LL. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED. PROPOSED CONDUIT SHALL TIE INTO EXISTING 2 IN. CONDUIT BEND LOCATED IN EXISTING BASE MOUNTED CABINET.
- MM. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE (CUT TO 5 FT.) WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01 AND AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS QUINCE ORCHARD ROAD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
- NN. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE (CUT TO 5 FT.) WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01 AND AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS QUINCE ORCHARD ROAD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).

EXISTING SIGNALS

1,2,5,6,7,
8,9,10,11

R
Y
G

12"

3,4

R
Y
G

12"

13,14

16" LED
COUNTDOWN
PEDESTRIAN
SIGNAL

PROPOSED SIGNALS

12,15,16,17

16" LED
COUNTDOWN
PEDESTRIAN
SIGNAL

EXISTING SIGNS

23

R3-1
(30"x30")

19

R3-18
(30"x30")

18,20,21,22

TWIN LAKES DR
D-3(1)
(VAR.X16")

24,25

Quince Orchard RD
D-3(1)
(VAR.X16")

26,27

Quince Orchard RD
D-3(1)
(VAR.X16")

28

PUSHBUTTON TO CROSS
TWIN LAKES DR
R10-3(1)
9" x 15"

29

PUSHBUTTON TO CROSS
QUINCE ORCHARD RD
R10-3(1)
9" x 15"

30,32

PUSHBUTTON TO CROSS
QUINCE ORCHARD RD
R10-3(1)
9" x 15"

31,33

PUSHBUTTON TO CROSS
QUINCE ORCHARD RD
R10-3(1)
9" x 15"

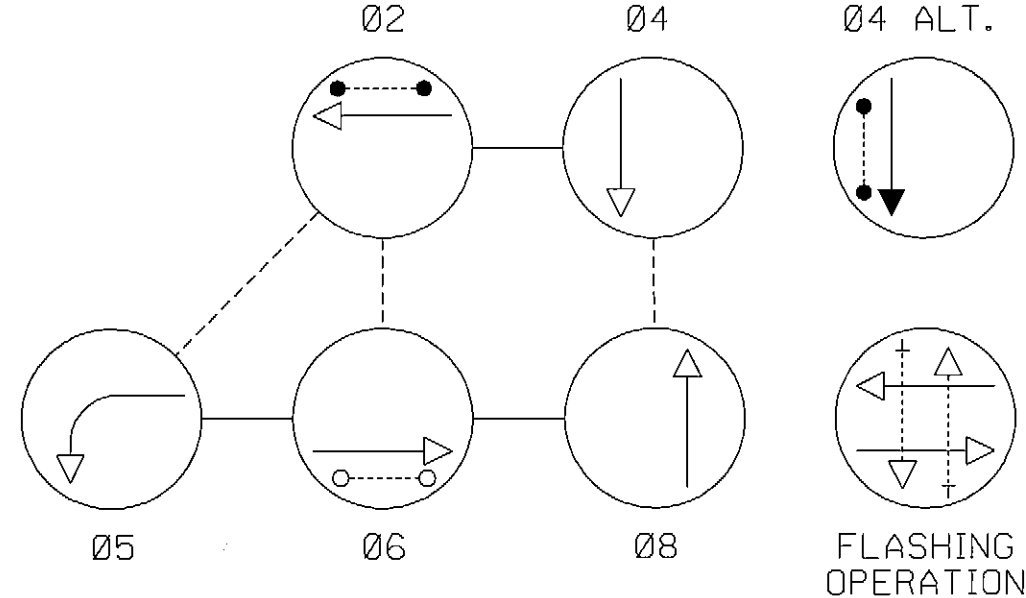
34

PUSHBUTTON TO CROSS
QUINCE ORCHARD RD
R10-3(1)
9" x 15"

35

PUSHBUTTON TO CROSS
QUINCE ORCHARD RD
R10-3(1)
9" x 15"

NEMA PHASING



NOTE:
PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

GENERAL NOTES

- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS SHOULD ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
- REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" x 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E-2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE", IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
- REFER TO SHEET NOS. TSP-02 AND TSP-03 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND PAVEMENT MARKINGS WITHIN INTERSECTION.
- CALL MONTGOMERY COUNTY TRANSPORTATION MANAGEMENT CENTER (TMC) 72 HOURS PRIOR TO ANY DIGGING TO MARK THE EXISTING TRAFFIC SIGNAL EQUIPMENT.

SPECIAL NOTE:

CONTRACTOR SHALL USE CAUTION WHEN INSTALLING SIGNAL EQUIPMENT TO AVOID DISTURBANCE OF EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL TEST PIT TO DETERMINE EXACT LOCATION AND DEPTH OF UNDERGROUND UTILITIES PRIOR TO INSTALLING SIGNAL EQUIPMENT.

GEOMETRIC LEGEND

— EXISTING
— PROPOSED

UTILITY LEGEND

SD — SD — STORM DRAIN
G — G — GAS MAIN
W — W — WATER MAIN
S — S — SEWER MAIN
E — E — ELECTRIC CABLES
A — A — AERIAL CABLES
T — T — TELEPHONE CABLES
F — F — FIBER-OPTIC

WR&A
WHITMAN, REQUARDT & ASSOCIATES, LLP
801 South Caroline Street, Baltimore, Maryland 21231

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 124 (QUINCE ORCHARD ROAD)
AND TWIN LAKES DRIVE
(GAITHERSBURG, MD)

TRAFFIC SIGNALIZATION PLAN

SCALE: 1" = 20', DATE: 2-17-83, CONTRACT NO. _____

DESIGNED BY: M.G.D. COUNTY: MONTGOMERY
DRAWN BY: M.G.D. LOGMILE: 15012401.58
CHECKED BY: _____ TIMS NO. _____
F.A.P. NO. _____ TOD NO. _____

TS NO. 1997C DRAWING TSP-01 OF 4 SHEET NO. 1 OF 4